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| APPLICATION NO. | | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------|----------|-------------|----------------------|-------------------------|------------------|
| 10/031,618 | | 02/13/2002 | Masaaki Yoshimaru | 2002-0056A | 6815 |
| 513 | 7590 | 03/31/2004 | | EXAMINER | |
| | • | ND & PONACI | YOON, TAE H | | |
| 2033 K STRI SUITE 800 | EET N. V | W. | ART UNIT | PAPER NUMBER | |
| WASHINGT | ON, DO | 20006-1021 | 1714 | ٠. | |
| | | | | DATE MAILED: 03/31/200- | 4 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| · | Application No. | Applicant(s) | | | | |
|---|--|---|--|--|--|--|
| | 10/031,618 | YOSHIMARU ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Tae H Yoon | 1714 | | | | |
| The MAILING DATE of this communication ap Period for Reply | pears on the cover sheet | with the correspondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a rep - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b). | 136(a). In no event, however, may oly within the statutory minimum of the will apply and will expire SIX (6) Mode, cause the application to become | a reply be timely filed hirty (30) days will be considered timely. DNTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1)⊠ Responsive to communication(s) filed on 22 J | lan. 2002, Pre. Amdt. | | | | | |
| • | s action is non-final. | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4) ⊠ Clairn(s) 1-16 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-16 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or | awn from consideration. | | | | | |
| Application Papers | | | | | | |
| 9)☐ The specification is objected to by the Examin | er. | | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ acc | | | | | | |
| Applicant may not request that any objection to the | * * * * | · | | | | |
| Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the E | • | *,, | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureat* See the attached detailed Office action for a list | nts have been received. Its have been received in ority documents have been received in our documents have been au (PCT Rule 17.2(a)). | Application No en received in this National Stage | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date | Paper N | v Summary (PTO-413) o(s)/Mail Date f Informal Patent Application (PTO-152) | | | | |

Application/Control Number: 10/031,618

Art Unit: 1714

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "A <u>polymer</u> comprising a triphenylboron-containing constituting unit of the formula [I] -----; and a group of the formula (2b) --- " in claim 1 is confusing since the formulae (1a), (2a) and (3a) is a part of the polymer, but the formula (2b) without the coordinating arrow is not a part of the polymer. Thus, claimed invention in claim 1 would be a composition rather than a polymer. Clarification is needed.

There are two claims each reciting claim number 11 and 12 in the original claims and amended claims filed on January 22, 2002, but the Marked-up copy of claims does not show one set of original claims 11 and 12 with respect to "the fouling preventive" (the intended use recited in said claims 11 and 12 has no probative value though). Thus, clarification is needed. Note that new claim number must start from the original claims and thus new claims 11-16 would be claims 13-18 even with the cancellation of the original claims 11 and 12. Claim 16 failed to further limit claim 7, and cancellation is suggested.

Claims 1-16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,462,102 teach a polymer from a complex of vinylpyridine and triphenylborane at col. 5, lines 66 and col. 7, lines 16-19, but fail to suggest employing the instant amino-substituted, N-containing heterocycle. (formula (2b)). WO98/33829 (abstract) teaches a triphenylborane-containing polymer, but fail to suggest the instant formulae (1a), (2a) or (3a) and (2b). US 3,211,679 teaches a complex of triphenylborane and a heterocyclic amine such as pyridine, but fails to suggest an acid polymer complexed with said complex at col. 2. US 4,174,339 teaches a copolymer complexed with trialkyl-tin compound in abstract.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tae H Yoon Primary Examiner Art Unit 1714

THY/March 22, 2004